

**COASTAL IMPACT ASSISTANCE PROGRAM
(CIAP)
FY 2007
Tier I**

1. PROJECT TITLE: Wetland Wastewater Assimilation Process Planning
2. ENTITY NOMINATING THE PROJECT: St. James Parish Council
3. CONTACT INFORMATION: Mr. Jody Chenier
St. James Parish Council
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4. TOTAL CIAP FUNDS REQUESTED: \$50,000
5. PARISH CIAP FUNDS REQUESTED: \$50,000
6. STATE CIAP FUNDS REQUESTED: None
7. INFRASTRUCTURE FUNDS PROPOSED: None
8. DESCRIPTION AND LOCATION OF PROJECT: The St. James Parish Council will hire a consulting company to conduct a preliminary analysis to determine the feasibility of the application of wastewater effluent into wetlands. The study will be parishwide and will develop a plan to allow wetland assimilation to provide tertiary treatment to wastewater while improving wetland quality. The study will analyze potential sites and set project goals. The wetland areas will be characterized by their ecological condition and capacity to assimilate wastewater. The study will include interaction with engineers to provide cost estimates to improve existing systems, as well as, construction of new systems needed to meet regulatory standards. The final report will provide preliminary characterizations of the Parish's wetland systems, their suitability for wastewater assimilation, an analysis of loading and assimilation capacity, and capabilities of the wetlands and preliminary engineering and cost analyses.

The use of wetlands provides a dual benefit for wastewater treatment. Using a wetland treatment approach allows for the development of a system that can function for long periods of time; and because of the natural processes, the wetlands will achieve water quality improvements. The use of wetlands nets an ecosystem that is healthy and results in greatly improved nutrients needed to sustain a growing wetland area. The added nutrients have shown a significant increase in net productivity, litter fall, and wood production.

9. PROJECT TYPE: Planning assistance.
10. PROJECT JUSTIFICATION: Several studies and reports have been completed that explain and demonstrate the improved wetland quality from similar wastewater projects. The Parish will use an experienced environmental consultant to evaluate and make recommendations for beneficial use through wetland assimilation. The project will help in the design of wastewater treatment systems that will meet regulatory requirements, improve water quality, enhance wetland areas, and reduce maintenance and operational costs of traditional systems. Past studies have shown the quick response and re-vegetation of forested wetlands by the addition of secondarily treated wastewater. By inducing accretion through the deposition of suspended solids, wastewater applications have produced positive wetland habitat increases. The addition of discharges into forested wetland areas have positively affected forest species composition, density, and structure by causing changes in hydrology, sediment deposit, and nutrient status. The implementation of these types of systems throughout the Parish will provide a cost effective and beneficial use of wastewater, as well as, helping to enhance and maintain our Parish's wetland areas.
11. PROJECT COST SHARE (NON-CIAP FUNDS): The Parish will develop and provide digitized maps of the site areas. All mapping and photography needed for the development and implementation of this project will be undertaken by the Parish Council. The estimated value of this task is approximately \$10,000, which will be provided by the Parish through in-kind labor and materials.